Amendments to the Specification:

Please replace paragraph [0034] with the following amended paragraph:

[0034] In the illustrated metric estimator and transformer 16 the misspeculation cost is determined as follows. First, the metric estimator and transformer 16 searches for data dependencies between the main thread code segments and the corresponding speculative parallel ~~tread~~ <u>thread</u> segments in the speculative parallel thread candidate. Second, for an identified data dependency, the metric estimator and transformer 16 estimates the likelihood, or probability, that a violation will occur for the data dependency, denoted as $P_{V,I}$ for the Ith data dependency. One having ordinary skill in the art will appreciate that there are many ways to determine this probability. For example, the metric estimator and transformer 16 could employ a predetermined set of heuristics that estimate the likelihood of a dependency violation based on the programming language constructs within the speculative parallel thread candidate. In another example, the metric estimator and transformer 16 could use profiling information, if available, to estimate the probability that a violation will occur for the data dependency. In yet another example, the metric estimator and transformer 16 could assume a predetermined value for the probability of the dependency violation. The preferred approach depends on the resources available to the compiler, as well as the target for which the program code is being compiled.